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L4: Entry 3 of 6

File: DWPI

Nov 6, 2001

DERWENT-ACC-NO: 2001-457850

DERWENT-WEEK: 200170

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TITLE: Combination plastic spiral coil-forming/binding machine for binding books, has machine for forming hot-binding coils, cooler for cooling formed hot-binding coils and machine for binding cooled coils

INVENTOR: SPIEL, N; DORISHOOK, R

PATENT-ASSIGNEE:

ASSIGNEE

CODE

SPIEL ASSOC INC

SPIEN

DORISHOOK R

DORII

SPIEL N

SPIEI

PRIORITY-DATA: 1999US-0460887 (December 14, 1999), 1997US-0843754 (April 21, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6312204 B1	November 6, 2001		000	B42B005/10
CA 2321937 A1	June 14, 2001	E	040	B42B005/12

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6312204B1	April 21, 1997	1997US-0843754	CIP of
US 6312204B1	December 14, 1999	1999US-0460887	
US 6312204B1		US 5890862	CIP of
CA 2321937A1	October 2, 2000	2000CA-2321937	

INT-CL (IPC): B29C 53/12; B42B 5/10; B42B 5/12; B42B 9/00

ABSTRACTED-PUB-NO: CA 2321937A

BASIC-ABSTRACT:

NOVELTY - A combination plastic spiral coil-forming/-binding machine has a coil forming machine for forming hot binding coils. A cooler for cooling the formed hot binding coils to a solid, non-brittle state and a binding machine for binding the cooled coils into holes of a book being bound are also provided.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process for binding books comprising (i) forming a plastic coil using a plastic spiral-forming machine; (ii) cutting the plastic coil to a predetermined length; (iii) stopping the advancement of a conveyor belt that includes compartments; (iv) ejecting the plastic coil onto one of the compartments; (v) advancing the conveyor belt to a another compartment at a predetermined speed to lower the temperature of the plastic coil; and (vi) binding the book with the lowered temperature plastic coil.

USE - For binding sheaf of papers into books.

ADVANTAGE - The invention provides a spiral bound book with a durable, non-brittle plastic spiral coil. It is of low cost and reliable operation. It controls proper feeding of the spiral without necessity for expensive machined parts to confine the spiral to prevent its distortion.

ABSTRACTED-PUB-NO:

US 6312204B

EQUIVALENT-ABSTRACTS:

NOVELTY - A combination plastic spiral coil-forming/-binding machine has a coil forming machine for forming hot binding coils. A cooler for cooling the formed hot binding coils to a solid, non-brittle state and a binding machine for binding the cooled coils into holes of a book being bound are also provided.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process for binding books comprising (i) forming a plastic coil using a plastic spiral-forming machine; (ii) cutting the plastic coil to a predetermined length; (iii) stopping the advancement of a conveyor belt that includes compartments; (iv) ejecting the plastic coil onto one of the compartments; (v) advancing the conveyor belt to a another compartment at a predetermined speed to lower the temperature of the plastic coil; and (vi) binding the book with the lowered temperature plastic coil.

USE - For binding sheaf of papers into books.

ADVANTAGE - The invention provides a spiral bound book with a durable, non-brittle plastic spiral coil. It is of low cost and reliable operation. It controls proper feeding of the spiral without necessity for expensive machined parts to confine the spiral to prevent its distortion.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: COMBINATION PLASTIC SPIRAL COIL FORMING BIND MACHINE BIND BOOK
MACHINE FORMING HOT BIND COIL COOLING COOLING FORMING HOT BIND COIL MACHINE BIND
COOLING COIL

DERWENT-CLASS: A35 A84 P76

CPI-CODES: A11-A02C; A11-A05; A11-C07; A12-W07F;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; P0000 Polymer Index [1.2] 018 ; ND07 ; ND01 ; N9999
N5812*R ; Q9999 Q6804 ; N9999 N6279 N6268 ; B9999 B5287 B5276 ; B9999 B3747*R ;
ND05 ; J9999 J2915*R ; N9999 N6348 N6337

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-138522

Non-CPI Secondary Accession Numbers: N2001-339366

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L4: Entry 5 of 6

File: DWPI

Mar 23, 1989

DERWENT-ACC-NO: 1989-269584

DERWENT-WEEK: 198937

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TITLE: Heat exchanging element - has spiral ribs made of cable and harder material
core less conductive than peripheral strands

INVENTOR: ULINSKAS, R V; ZAKREVSKII, V F ; ZHUKAUSKAS, A A

PRIORITY-DATA: 1987SU-4309525 (July 16, 1987)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
SU 1467359 A	March 23, 1989		004	

INT-CL (IPC): F28F 1/36

ABSTRACTED-PUB-NO: SU 1467359A

BASIC-ABSTRACT:

The element has a pipe (1) with spiral-wire ribs (2), made of woven cable and connected to the pipe outer surface to ensure complete homogeneous contact along the coil whole surface, by binding wire (3) and soldering. The heat transfer is intensified since the spiral cable is provided with a core made of harder material but less conductive than the peripheral strands. The spiral coils are turned w.r.t. the coil axis by an angle of (0.25-0.5) pi.

The heat exchanger flows over the pipe (1) and ribs surface, partially enters the gaps between the wires creating filtration stream. The ribs trapezoidal shape reduces the shadow effect and improves access of the heat carrier to the root part situated on the pipe surface. The increased heat transfer surface together with the filtration movement ensures additional convective heat transfer.

USE - The element can be used in heat exchangers employed in electric machines air coolers, oil cooler, air conditioning etc.. Bul.11/23.3.89